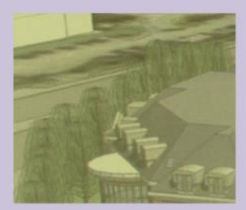

CSa environmental planning

October 2014

Northumberland Development Project

Nesting Bird Survey Report

Prepared by
CSa Environmental Planning

On behalf of
Tottenham Hotspur Property Company Ltd.

Report No: CSa/1037/06

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1.0 INTRODUCTION

1.1 This report has been prepared by CSa Environmental Planning on behalf of Tottenham Hotspur Property Company Ltd. It sets out the findings of a nesting bird survey undertaken at White Hart Lane football stadium in Tottenham. The report has been prepared to inform proposals for redevelopment of the stadium.

1.2 Full details of an ecological assessment undertaken at the site are provided within CSa's Ecological Assessment report dated June 2009 (Report Ref: CSA/1037/02b). This concluded that the highly urbanised nature of the site is unlikely to support a notable bird community. This report identified that the stadium could be used for nesting by common bird species.

1.3 The development timescale may require demolition of the existing stadium within the nesting bird season, taken to be March to August inclusive. If this becomes the case it will be necessary to implement bird proofing measures at the stadium before the end of February preceding demolition to prevent birds from nesting. The aim of this survey is to identify the locations of any existing nesting activity at the stadium to help to guide appropriate types and locations of bird proofing measures and/or deterrents.

2.0 LEGISLATION

2.1 All wild birds, their nests and eggs are protected under subsection 1(1) of the Wildlife and Countryside Act 1981. It is an offence to kill or injure any wild bird, to take or destroy their eggs, or to take, damage or destroy their nests whilst in use or being built.

2.2 In addition, certain species of wild bird, listed within Schedule 1 of the Wildlife and Countryside Act, receive additional protection under subsection 1(5) of the Act. This makes it an offence to disturb any wild bird included in Schedule 1 while it is building a nest or is in, on or near a nest containing eggs or young. It is also an offence to disturb the dependent young of such a bird.

2.3 Bird species recorded during this report are also described in terms of their conservation status, following Birds of Conservation Concern (BoCC) criteria[1], as summarised in in Table 1 below.

Table 1. Criteria for classifying birds of conservation concern

Red listed	• those that are globally threatened according to The World Conservation Union (IUCN) criteria; • historical decline in breeding population and not shown substantial recent recovery • those that have shown a severe breeding decline over 25 years/longer term; • those that have shown a severe breeding range decline over 25 years/longer term; • species whose non-breeding population has declined over 25 years/longer term.
Amber listed	• species of European Conservation Concern; • those whose population has declined historically but made a substantial recent recovery; • those whose breeding population has declined moderately over 25 years /longer term; • those that have shown a moderate breeding range decline over 25 years/longer term; • those whose non-breeding population has declined moderately over 25 years /longer term; • rare breeders; or non-breeding rarity • species with internationally important or localised populations.
Green listed	• species that fulfil none of the criteria above.

[1] Eaton MA, Brown AF, Noble DG, Musgrove AJ, Hearn R, Aebischer NJ, Gibbons DW, Evans A and Gregory RD (2009) Birds of Conservation Concern 3: the population status of birds in the United Kingdom, Channel Islands and the Isle of Man. *British Birds* 102, pp296-341

3.0 METHODOLOGY

3.1 Four breeding bird surveys were carried out at the stadium between the 23 April 2014 and 29 May 2014. Each survey commenced shortly after dawn, when birds are most active, and continued for several hours during suitable weather conditions as summarised in Table 2.

Table 2: Bird survey weather conditions

Date	Weather conditions
23.04.14	Quite clear (3/8cc), mild, light wind, dry
02.05.14	Overcast (8/8cc), mild, light wind, dry
22.05.14	Cloudy (7/8cc), mild, light breeze, dry
29.05.14	Mainly cloudy (6/8cc), warm, light breeze, dry

3.2 On each visit two experienced ornithologists walked a slow route both inside and around the outside of the stadium. Access was gained for a visual inspection of the stadium roof on one occasion. Birds were detected by sound or sight, using binoculars. The presence of singing males and their location in occupied territories was noted carefully, following the method outlined for territory mapping in Bibby *et al*, 2005[2]. Any nests found were observed and photographed, with precise locations recorded.

[2] Bibby et al (2000). *Bird Census Techniques*. 2nd Edition. Academic press, London.

4.0 RESULTS

4.1 Four bird species were found to be breeding at the stadium, with a total of six nests recorded.

4.2 Nesting activity is described below and details and locations of the nests found are shown within Appendices A and B.

4.3 Within the stadium there is a kestrel *Falco tinnunculus* nest in the lower rear half of the north stand monitor screen (Photos A and B, Appendix A). There are two entrance holes to the east and west where the girders enter the back of the screen. One male and one female kestrel were observed around the nest site, calling, mating and carrying food. In May at least one juvenile kestrel was observed at the nest site.

4.4 Three feral pigeon *Columba livia domestica* nests were discovered, two of which are located in the southern half of the stadium. One of these nests is in the lower rear half of the south stand monitor screen, with an entrance hole to the west where the girders enter the back of the monitor screen (Photos C and D, Appendix A). Another is in the south west corner of the stadium situated on girders, under the ceiling which is the floor of the upper tier (Photos E and F, Appendix A). The third nest is at the north of the stadium inside the west end of the cafeteria, situated on flue just down from Gangway 17 (Photos G and H, Appendix A). All nests were thought to contain chicks at the beginning of the surveys due to pigeons regularly coming and going to these locations, with chicks observed in the May visits. It is a possible that a further feral pigeon nest is present high up on the exterior of the stadium in the north west corner but no access is possible so this could not be confirmed.

4.5 One starling *Sturnus vulgaris* nest was observed in the south east corner of the stadium exterior (Photos I and J, Appendix A). The nest hole is tight and set in the underside of a concrete ledge just above an entrance door to the stadium. During the surveys chicks were heard from inside the nest and adults were seen regularly feeding the chicks.

4.6 Carrion crows *Corvus corone* were observed on site in the first three surveys, and in the final survey an old crow's nest was found on the roof of the stadium thought to have been used this year (Photo K, Appendix A). It is located in a girder junction on top of the roof at the north east section of the stadium.

4.7 The full survey results are included within Table 3 below. In addition to the four species nesting, ten additional bird species were recorded on or adjacent to the survey area.

Table 3: Full breeding bird survey results

Bird species	**Survey Date**			
	23/4/2014	**2/5/2014**	**22/5/2014**	**29/5/2014**
Cormorant *Phalacrocorax carbo*	0	1 over stadium	0	2 over stadium
Little egret *Egretta garzetta*	0	0	1 seen flying over buildings in morning next to stadium boundary	0
Grey heron *Ardea cinerea*	1 over stadium boundary	0	0	0
Kestrel *Falco tinnunculus*	1 male & 1 female seen at and around nest site (K1) at back of north stand monitor screen. Good activity all morning including calling, mating and male with food. Must have chicks	1 male kestrel seen at stadium over SE corner but no activity seen in morning at nest site at north stand monitor	1 male kestrel with 1 fledged male juvenile at nest site K1. Food pass to juv from adult. Either only one young fledged or others are elsewhere that morning	1 juvenile seen at NW part of stadium roof then flew to nest site at north stand monitor screen. Waiting to be fed by adults perhaps
Black-headed gull *Chroicocephalus ridibundus*	2 over stadium	0	0	0
Lesser black-backed gull *Larus fuscus*	1 over stadium	3 over stadium	2 over stadium	1 over stadium
Feral pigeon *Columba livia domestica*	2 feral pigeon nests found with birds coming and going regularly – nests at FP1 & FP2. Both nests have chicks very likely	3 feral pigeon nests found with birds coming and going regularly – nests at FP1 & FP2 & FP3. 1 fledged chick seen in FP2 with adult	1 juvenile pigeon on flue nest site at FP3. But no activity at other two nest sites with all young fledged	Two nests at FP2 & FP3 have no activity with young fledged. Nest at FP1 has adult going into back of south stand monitor screen so could have a second clutch. 9 pigeons on pitch as well.
Common swift *Apus apus*	0	0	3 over stadium regularly	0
Pied wagtail *Motacilla alba*	1 seen over east stand and pitch twice	2 on stadium roof	0	2 foraging on roof of stadium but no nest noted, so must be nesting outside of stadium
Blackbird *Turdus merula*	0	1 male singing from trees outside of SW block of stadium	0	0
Magpie *Pica pica*	0	0	0	1 over stadium
Carrion crow *Corvus corone*	2 flew over pitch	1 over stadium	1 over stadium	Old crow nest found at CC1 on stadium roof from this year
Starling *Sturnus vulgaris*	1 over the pitch	Starling nest observed at ST1, with hole in underside of concrete ledge. Chicks can be heard in nest at the SE corner of stadium (external) and adults feeding chicks regularly	2 over stadium but all chicks have fledged from nest site	2 over stadium but nest not used anymore
Chaffinch *Fringilla coelebs*	0	0	1 male singing near to south end	0

5.0 DISCUSSION AND RECOMMENDATIONS

5.1 The stadium was used for nesting by six pairs of common bird species in 2014, as described in Appendices A and B. All of these nests would be protected from damage or destruction whilst in use under the Wildlife and Countryside Act 1981 (as amended). No bird species were recorded that would receive additional protection from disturbance under Schedule 1 of the Act.

5.2 The results confirm that the existing stadium would be highly likely to be used by nesting birds in future years during the period March to August inclusive. Demolition of the stadium whilst nesting birds were present would represent an offence under the Wildlife and Countryside Act 1981 (as amended).

5.3 To avoid an offence being committed with regards to nesting birds the following options are available:

1) <u>Demolition proposed between March – August</u>
   Appoint a professional bird control contractor to advise on appropriate methods to prevent birds from nesting within the stadium, informed by the results of this survey. Measures may include the use of netting over nesting locations, installation of anti-perching spikes and/or flying birds of prey. Physical measures to block potential nest sites should be installed by the end of February within the year when demolition is scheduled.

2) <u>Demolition proposed between September - February</u>
   Demolition could proceed with minimal risk of impacting nesting birds. Nonetheless, it is possible that some species could still be nesting within this period and so demolition contractors should be made aware of this potential issue. Works should cease if nests are found whilst an ecologist is contacted to advise upon an appropriate course of action.

5.4 Two of the species found are declining species of conservation concern (starling and kestrel). Replacement nesting features for these species should be provided within the new design for the site

Appendix A

Location of bird nests identified in 2014

Note: All codes shown below refer to those on the plan of the stadium in Appendix B. The text, photographs and plan should allow the exact locations of the six individual nests to be found. It is possible that a further feral pigeon nest was present high up on the exterior of the stadium, in the NW corner, but this could not be confirmed because no access is possible to this location.

K1
Kestrel nest – Photos A & B
In lower rear half of the north stand monitor screen, with both east and west holes used by the breeding kestrels, but the east hole used mainly.

Photo A – east entrance hole shown where girders enter the back of the monitor screen

Photo B – more distant shot of the rear lower half of the north stand monitor that is used by the nesting kestrels

FP1
Feral pigeon nest – Photos C & D
In lower rear half of the south stand monitor screen, with the west hole used by the breeding pigeons

Photo C – the west entrance hole where the girders enter the rear lower half of the south stand monitor

Photo D – close up of the west entrance hole used by the nesting pigeons

FP2
Feral pigeon nest – Photos E & F
In south-west corner of stadium, on girders, under upper tier floor

Photo E – location of pigeon nest site under ceiling which is the floor of the upper tier

Photo F – close up of the same pigeon nest, tucked into corner

FP3
Feral pigeon nest – Photos G & H
Inside west end of cafeteria area at north end of stadium, with nest on flue, just down from Gangway 17. Has N1 on wall next to cafeteria

Photo G – pigeon nest on flue inside café area

Photo H – location of this flue with signage in front to help find location

ST1
Starling nest – Photos I & J
The nest hole is tight and in concrete above door at exterior of the south-east corner of stadium

Photo I – the starling entrance hole is the very small rectangular dark hole in centre of photo.

Photo J. The door and location directly below the overhang with the starling nest hole as shown in Photo I.

CC1

Carrion crow nest – Photos K & L

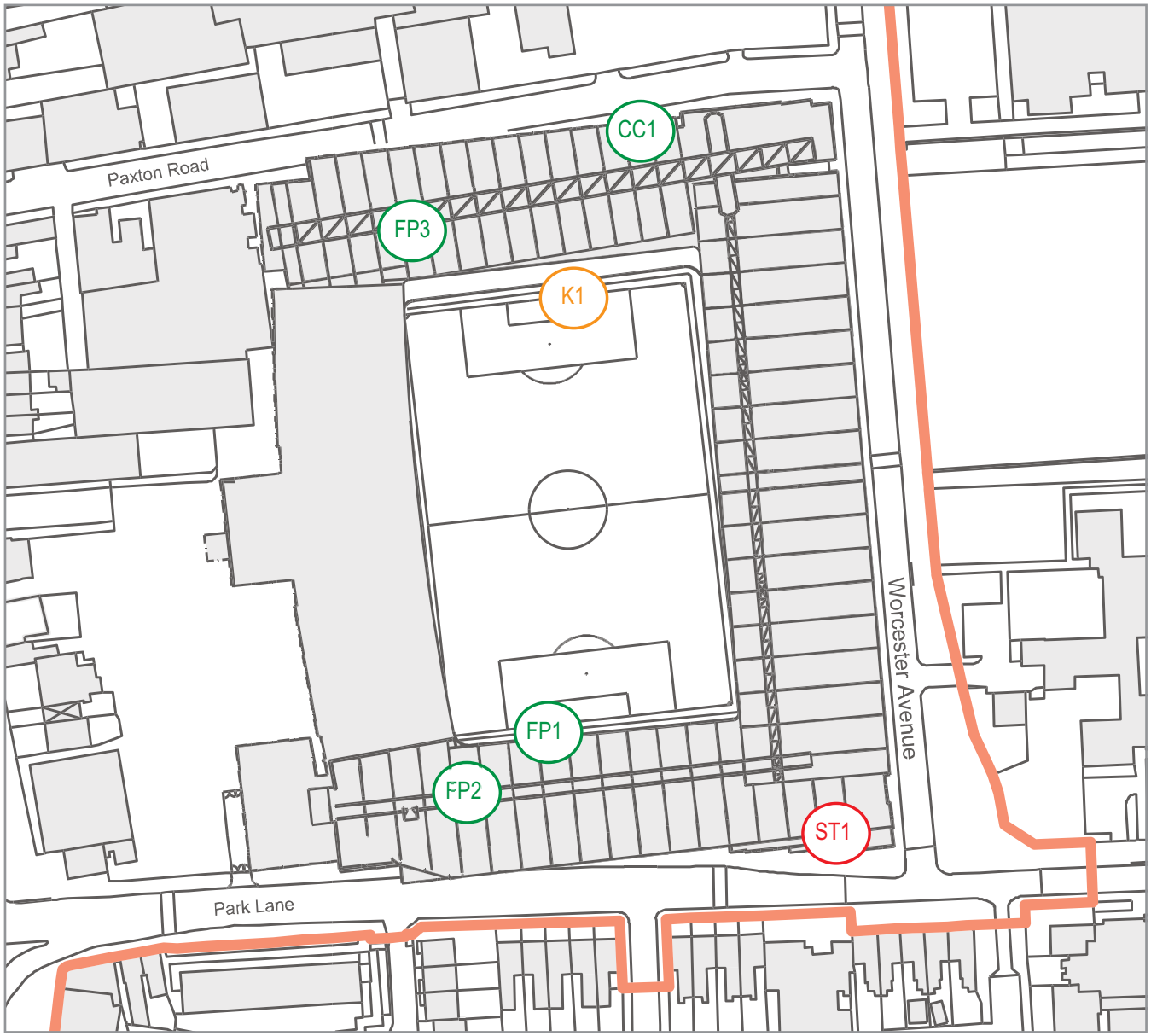
The nest had been vacated when found but it was used in 2014. Located in girder junction on top of roof at north-east section. Collection of sticks can be clearly seen

Photo K – close up of crow nest on roof of stadium

Photo L – more distant shot of same crow nest at girder junction

Appendix B

Breeding Bird Location Plan
CSa/1037/102



Legend

- Site boundary
- Nest location
- ST1 — Red listed species
- K1 — Amber listed species
- CC1 — Green listed species

Key to species codes

ST. Starling *Sturnus vulgaris*

K. Kestrel *Falco tinnunculus*

CC. Carrion crow *Corvus corone*

FP. Feral pigeon *Columba livia domestica*

0m 50m

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Project	Northumberland Development Project	Date	October 2014	Drawing Number	CSa/1037/102
Title	Breeding Bird Survey Nest Locations	Scale	Refer to scale bar	Revision	-
Client	Tottenham Hotspur Property Company Ltd.	Drawn	HW	Checked	